

work running to less than 500 pages. Many insects are described and discussed individually which are not particularly troublesome, and might, at any rate, have been treated collectively. We see no mention of the beech-bark coccus, a pest which is causing grave concern both here and on the Continent among owners of beech woods. The remainder of the work is occupied by a detailed description of some 550 species of "native and acclimatised" trees and shrubs. A description of the characteristics of each natural order prefaces the description of the species belonging to it. This space, we think, might have been better occupied with a discussion of the genus. A description of the great order of Ranunculaceæ, for instance, has only a very general bearing on Clematis, and it was scarcely worth while to preface the description of the solitary rubiaceous species here dealt with by an account of the great order to which it belongs.

The old problem of the "popular" name has been met by a brave effort on the part of the authors to provide nearly all the plants they mention with one. If a species had not one before they appear to have invented one. But the result is not always happy. We hardly know whether such a name as "Narrow-leaved Jasmine Box" for *Phillyrea angustifolia* (p. 107) indicates too dull or too vivid an imagination, for this shrub has no relationship with the box, nor does it bear any resemblance to the jasmine either in leaf or flower. The very next species, *P. decora*, is called "Vilmorin's Mock Privet," which is neither pretty nor correct.

The descriptions are carefully done, although somewhat too technical for the amateur, as for example where the flowers of common oak are described as "monœcious, anemophilous, proterogynous," and where the fruit of magnolia is termed an "etærio of follicles." Still, accuracy is the chief thing, and we do not notice many serious lapses. One of the worst is the description of *Ceanothus rigidus* as a deciduous climber with alternate leaves (p. 48). It is a perfectly evergreen bush with opposite leaves. Then *Acer circinatum* is said to have "greenish-white" flowers. Anyone who has had a personal acquaintance with this tree could not fail to have noticed its drooping corymbs of reddish-purple flowers, which make it perhaps the most attractive of commonly cultivated maples in regard to blossom.

The number of cultivated species of hardy trees and shrubs now exceeds 3000, and it would be an impossible task to select one-sixth of these for treatment and satisfy everyone. Yet the selections here made betray an indifferent acquaintance with some groups. *Berberis empetrifolia*, a rare shrub seldom seen in good condition, is included, but of *B. stenophylla*, in some respects the finest of all flowering evergreens, not a word is said; and whilst a weedy shrub like *Stephanandra Tanakae* is described, a fine handsome bush like *Exochorda grandiflora*, its near relative, is ignored. But the worst instance of this defect in these volumes is the inclusion of the American plane (*Platanus occidentalis*). The authors say this is to be found in "parks, gardens, avenues," and that it is "usually larger and more rapid in growth than the Eastern plane" (p. 144, vol. ii.). We had thought it

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well known to all tree-experts by now that the American plane is absolutely worthless in this country. So far from being comparable with the Eastern plane, there is not, we believe, a single tree in these islands with a trunk 6 inches in diameter. All the trees so called are forms of *P. acerifolia*, the common plane of London. Thus is an old error dating from Phillip Miller's time, and continued by Loudon, again perpetuated. The cultural notes will be found useful, although an absence of personal experience is again at times evident, as when it is stated that *Cistus ladaniferus*, from the sun-baked hills of Spain and Portugal, is suitable for shady places (p. xxxi).

Whilst we have felt bound to point out the obvious defects of this work, it must not be supposed we are blind to its merits. These are many, and to the great bulk of the matter no exception can be taken. For the drawings of Mr. Newall we have nothing but praise; they are botanically accurate as well as artistic. The coloured plates are of unequal merit; the picture of *Magnolia conspicua*, for instance, is either wrongly named or badly coloured, but this we suspect is more the colour printer's fault than the artist's. The printing, typography, and paper are all admirable.

ANTEDILUVIAN CHRONOLOGY.

The Dates of Genesis. A Comparison of the Biblical Chronology with that of other Ancient Nations. With an Appendix on Chronological Astronomy. By Rev. F. A. Jones Pp. 333. (London: Kingsgate Press, 1909.) Price 5s. net.

THIS is one of those strange little works which are continually issuing from the clerical workshop with the aim of expounding the early chronology of the Bible. Mr. Jones has many glimpses of real knowledge of archæological science, and has evidently read widely on the subject, but not always wisely, and he perpetrates several blunders. The most patent impossibility in the book is the absurd date assigned to the building of the Great Pyramid, viz., 2170 B.C., on the authority of Sir John Herschel. This is utterly impossible, on historical grounds.

We do not know what to make of Mr. Jones's views of modern scientific knowledge of the beginnings of human civilisation. He seems to think that human beings were originally placed in the world in a highly civilised condition, and ingeniously explains away the damning fact of the gradual evolution of man's tools and culture from the Older to the Newer Stone age and then to the age of Metal. He says that the ancient flint implements may indicate not "an early period in the development of art," but

"express limitation of opportunity. Wanderers from a civilised centre would, unless possessed of considerable personal ability, soon degenerate into using the simple methods that are characteristic of savage tribes . . . the existence of these flint weapons, in outlying districts, may not be pressed so far as to prove a date as being long before more advanced civilisation in the great centres of population."

That is to say, Palæolithic implements are the tools of degenerate offshoots from the highly civilised pre-

diluvian "patriarchs." For between the Palæolithic degenerates and the Neolithic degenerates came the Flood, which killed off all the extinct animals, such as the mammoth, which

"at all events, is not such an extremely ancient animal. Its remains are even to-day excavated, in some cases, as in Polar regions, with its flesh and hair intact."

It is difficult to know what to make of a writer who, in the twentieth century, believes, apparently, in the actual historical existence of Noah and his ark, and, by "combining the traditions of Jews, Arabians, and other nations with the story as told in the Hindu Puranas and the Sybylline [sic!] Oracles," arrives at the following interesting account, "which may or may not be true," of what happened about the time of the Flood (pp. 164, 165) :—

"Mahaleel was a very distinguished man who married a widow in the line of Cain. His son, Jared, thus acquired a claim to the rulership of the world, and exercised it for some time with great distinction. He is said by some to be the great Sesostris of the Greeks. . . . Methuselah maintained the holy traditions, and for his sake the flood was postponed till his death had taken place. Noah was by distinction the righteous man. . . . The nation descended from Ham very quickly turned aside to the old idolatry, and worshipped their ancestors under various names. These may be traced in Egypt, Chaldea, Phœnicia, and elsewhere. The children of Shem became kings of Magadha, but the dynasty ended about 2100 B.C. Noah was soon deposed from his rule by his sons, and driven away from the territory occupied by them. According to one account he was last seen about 2000 B.C., and he was of a colour between white and ruddy, and bald-headed." (!)

FIELD ORNITHOLOGY.

Camps and Cruises of an Ornithologist. By F. M. Chapman. Pp. xvi+432. (London: Hodder and Stoughton, n.d.) Price 12s. net.

FOR seven years the author, with the assistance of artist and *préparateur*, devoted the nesting season of birds to collecting specimens and making field studies and photographs on which to base a series of what have been termed "Habitat Groups" of North American birds for the American Museum of Natural History. These groups are designed to illustrate not only the habits and haunts of the birds shown, but also the country in which they live. The birds, and, in most instances, their nests and young, are therefore placed in a facsimile reproduction, containing from 60 to 160 feet of the locality in which they are found, and to this realistic representation of their habitat is added a background, painted from nature, and so deftly joined to the foreground that it is difficult to distinguish where one ends and the other begins. A reference to the photographs of these groups, which form some of the illustrations of this delightful book of field ornithology, will convince anyone at once of the truth of this remark. Some of these panoramic backgrounds portray not only the haunts of certain American birds, but America as well.

In the pursuit of his calling the author has had
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the good fortune to behold some of the most interesting and remarkable sights in the world of birds. The object of the present volume is to perpetuate his experiences and studies by telling the story of the various expeditions of which the groups were the objects, adding such information concerning the birds observed as seems worthy of record, and illustrating the whole with many photographs from nature, and a number of the groups themselves. The result is one of the most readable as well as informing books of the kind we have had the pleasure of seeing.

With the exception of one chapter, the whole book deals with American birds. But this need not be a drawback in the mind of even those whose ornithological interests are almost wholly confined to British birds. The author remarks that next to their native birds there are probably none of more general interest to the average American nature-lover than the birds of England. This is partly due to sentimental reasons. But we can return the compliment, for others. One is that many American birds, although considered by systematists as distinct species, are so like European birds that for all practical purposes of the field ornithologist they may be considered the same, while others are absolutely identical. So that in reading a book about the habits of these birds in America we are learning something more about our own birds' habits, modified a little, perhaps, by a slightly different environment or by different conditions of life. This last comes home to us when we read the account of Gardiner's Island ("within one hundred miles of our most populous city"), where there are no rats and no cats, "the ogres of the bird-world," and hardly any "vermin" destructive to bird-life. This large island, containing 4000 acres, is a place of peace and plenty for the birds. The whole account of it is full of interest, but the most remarkable fact is that the osprey, which is *very abundant*, builds its nest often in lowly situations, and actually in some cases on the ground. A number of illustrations of the ospreys and their nests are given, the great piled-up heaps of sticks built by the birds which breed on the beach affording excellent chances of photographing the old birds at the nest.

Some birds are more get-at-able in the North-West than they are, say, in that almost unknown land, the marshes of south-eastern Europe. Take the great white pelican, for instance. It is a most difficult—nearly impossible—bird to study in Europe; but in many of the numberless lakes of Manitoba, Saskatchewan, and Alberta, invariably upon islands, white pelicans nest, a colony containing anything from a dozen to several thousand birds. This bird so closely resembles the European one that it used to be considered identical with it. The chapter on and illustrations of it are therefore very welcome, for the author saw a good deal of pelicans.

Perhaps the most interesting chapter in the book describes the flamingo—not, indeed, our pink flamingo, but the brilliant red species (*Ph. ruber*). However, a flamingo, so far as life-habits are concerned, seems to be simply a flamingo wherever he lives. It is here truly remarked that there are larger